

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>	
LIVINGSTON COUNTY SPENCER J HARDY	KOZW	RNAV (GPS) RWY 13	2B	HOWELL	MI	
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
962	962	RNAV (GPS) RWY 13	2A	04/02/2015	5W	1990
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>		
RNAV		5 DECEMBER 2019	ROUTINE			

TERMINAL ROUTES THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 19-23.

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
FNT VORTAC		PIPTY		TF	FB	1.00	249.73	18.79	3000
PIPTY	IAF	HUCCY	NOPT	TF	FB	1.00	203.27	6.00	3000
WEPPY	IAF	HUCCY	NOPT	TF	FB	1.00	061.14	5.29	3000
HUCCY	IF/IAF	DURGY		TF	FB	1.00	132.22	5.60	2500
DURGY	FAF	JIVEX/2.10 NM TO RW13		TF	FB	0.30	132.29	2.58	
JIVEX/2.10 NM TO RW13		RW13	MAP	TF	FO	0.30	132.29	2.10	
RW13	MAP	1162 MSL		CA			132.29		
1162 MSL		BROVI		DF	FO	1.00			2800

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW13

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2800 DIRECT BROVI AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD NW HUCCY, RT, 132.22 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 132.29 FAF: DURG DIST FAF TO MAP: 4.68 DIST FAF TO THLD: 4.68
4. MIN ALT: HUCCY 3000, DURG 2500, JIVEX/2.10 NM TO RW13 1660*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.48 ← GS ANT: MM: IM:
6. MIN GP INCPT: 2500 GP ALT AT FAF : DURG 2500 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 47.7
8. MSA FROM: RW13 3100

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE 37°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT FNT VORTAC ON V450 EASTBOUND.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 0.91 NM TO RW13*
*LNAV ONLY
WAAS CHANNEL #69601
REFERENCE PATH ID: W13A
CHART FAS OBST: 1036 TREE 423810N/0835917W.
HOLD SE, RT, 312.48 INBOUND
LTP HAE: 260.1 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA	1162	1/2	200	1162	1/2	200	1162	1/2	200	1162	1/2	200			
LNAV/VNAV DA	1212	1/2	250	1212	1/2	250	1212	1/2	250	1212	1/2	250			
LNAV MDA	1300	1/2	338	1300	1/2	338	1300	1/2	338	1300	1/2	338			
CIRCLING	1400	1	438	1420	1	458	1420	1 1/2	458	1520	2	558			



CHANGES - REASONS

1. DELETED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN REQUIREMENTS NOTE: RNP APCH - 8260.19H, 8-6-8.
2. REMOVED ALL CHART NOTES REFERRING TO BACK-UP ALTIMETER SETTING - MOVED TO FORM 8260-9 FOR CONTINGENCY USE.
3. REMOVED FAHRENHEIT VALUES FROM UNCOMPENSATED BARO-VNAV NOTE - NO LONGER REQUIRED.
4. DELETED FEEDER ROUTE FROM JACKSON (JXN) VOR/DME TO WEPPY (IAF) - JXN VOR/DME BEING DECOMMISSIONED.
5. DELETED PLANVIEW NOTE ASSOCIATED WITH JXN VOR/DME - JXN VOR/DME BEING DECOMMISSIONED.
6. CHANGED PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS ON FNT VORTAC AIRWAY RADIALS 234 CW 286" TO "PROCEDURE NA FOR ARRIVALS AT FNT VORTAC ON V450 EASTBOUND"
- UPDATED RADIALS IN EXCESS OF 90 DEGREES TO INBOUND RADIAL.
7. ADDED 20:1 IS CLEAR TO LINE 7 - 8260.19H, 8-6-7G.
8. DELETED NOTE: @ NA WHEN LOCAL WEATHER NOT AVAILABLE - LOCAL WEATHER ON WMSCR.
9. ADDED MAXIMUM HOLDING ALTITUDE "6000" TO H-I-L - NEW REPORTS FORMAT NOW ADDS MAX HOLDING ALTITUDE AT H-I-L.
10. INCORPORATED CHANGES FROM AMDT 2A - 8260.19H, 8-3-4C.
11. CHANGED INOPERATIVE MALSR NOTE TO "FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM - 8260.19H, 8-6-11, O(H)(3)(D).

PDF EDIT 8/22/19: JAMES LAFFERTY, REMOVED THE STATEMENT "ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED".

9/25/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 9/11/19.

1. ADDED TO LINE 5 OF THE -3 FORM; 200 HAT: 0.48.

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** DET APP CON, ZOB, ARPT MGR

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

OFFICE *Digitally signed by* **DATE**

DAVID TEFFETELLER

Oct 01, 2019

DEVELOPED BY

JAMES LAFFERTY

Digitally signed by

DAVID TEFFETELLER

Oct 01, 2019

OFFICE

AJV-A433

DATE

08/21/2019

APPROVED BY

GEORGE DAVIS

Digitally signed by

DAVID TEFFETELLER

Oct 01, 2019

OFFICE

AJV-A430

DATE

TITLE
MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KOZW
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	423800.9300N
LTP/FTP LONGITUDE	0835922.4900W
LTP/FTP ELLIPSOIDAL HEIGHT	+02601
FPAP LATITUDE	423706.8500N
FPAP LONGITUDE	0835746.5600W
THRESHOLD CROSSING HEIGHT (TCH)	00047.7
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	96.25
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	54A1A101

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02932
FPAP ORTHOMETRIC HEIGHT	+02932

